

WHAT IS CLAIMED IS:

1. An image input apparatus which can perform data communication with an image output apparatus, comprising:
 - 5 designation means for designating an image editing process to an original;
 - reading means for reading image data from the original;
 - storage means for storing the image data of the original read by said reading means;
 - original direction detection means for detecting a direction of the original in regard to the image data;
 - first transmission means for transmitting a detection result by said original direction detection means and the image editing process designation by said designation means to said image output apparatus; and
 - 20 second transmission means for reading the image data stored in said storage means and transmitting the read image data to said image output apparatus.
2. An image output apparatus which can perform data communication with an image input apparatus, comprising:
 - 25 image processing means for performing an image process according to image editing process

designation received from said image input apparatus,
to image data received from said image input
apparatus, on the basis of an original direction
detection result received from said image input
apparatus; and

output means for performing print output of the image data subjected to the image process by said image processing means.

10 3. An image forming system in which image data input by an image input apparatus can be output by an image output apparatus capable of performing data communication with said image input apparatus, wherein

15 said image input apparatus consists of
designation means for designating an image
editing process to an original,

reading means for reading image data from the original,

20 storage means for storing the image data
of the original read by said reading means,
original direction detection means for
detecting a direction of the original in regard to
the image data,

25 first transmission means for transmitting
a detection result by said original direction
detection means and the image editing process

designation by said designation means to said image output apparatus, and

second transmission means for reading the image data stored in said storage means and

5 transmitting the read image data to said image output apparatus, and

said image output apparatus consists of

image processing means for performing an image process according to the image editing process

10 designation received from said image input apparatus, to the image data received from said image input apparatus, on the basis of the original direction detection result received from said image input apparatus, and

15 output means for performing print output of the image data subjected to the image process by said image processing means.

4. A control method for an image input
20 apparatus capable of performing data communication with an image output apparatus, comprising:

a designation step of designating an image editing process to an original;

25 a reading step of reading image data from the original;

a storage step of storing the image data of the original read in said reading step, in a memory;

an original direction detection step of detecting a direction of the original in regard to the image data;

5 a first transmission step of transmitting a detection result in said original direction detection step and the image editing process designation in said designation step to the image output apparatus; and

10 a second transmission step of reading the image data stored in the memory and transmitting the read image data to the image output apparatus.

5. A control method for an image output apparatus capable of performing data communication 15 with an image input apparatus, comprising:

an image processing step of performing an image process according to image editing process designation received from the image input apparatus, to image data received from the image input apparatus, 20 on the basis of an original direction detection result received from the image input apparatus; and an output step of performing print output of the image data subjected to the image process in said image processing step.

25

6. A program for executing a control method of an image input apparatus capable of performing data

communication with an image output apparatus, said method comprising:

 a designation step of designating an image editing process to an original;

5 a reading step of reading image data from the original;

 a storage step of storing the image data of the original read in said reading step, in a memory;

10 an original direction detection step of detecting a direction of the original in regard to the image data;

 a first transmission step of transmitting a detection result in said original direction detection step and the image editing process designation in 15 said designation step to the image output apparatus; and

 a second transmission step of reading the image data stored in the memory and transmitting the read image data to the image output apparatus.

20

7. A program for executing a control method of an image output apparatus capable of performing data communication with an image input apparatus, said method comprising:

25 an image processing step of performing an image process according to image editing process designation received from the image input apparatus,

to image data received from the image input apparatus,
on the basis of an original direction detection
result received from the image input apparatus; and
an output step of performing print output of
5 the image data subjected to the image process in said
image processing step.

8. A storage medium which computer-readably
stores a program for executing a control method of an
10 image input apparatus capable of performing data
communication with an image output apparatus, said
method comprising:

a designation step of designating an image
editing process to an original;
15 a reading step of reading image data from the
original;
a storage step of storing the image data of the
original read in said reading step, in a memory;
an original direction detection step of
20 detecting a direction of the original in regard to
the image data;
a first transmission step of transmitting a
detection result in said original direction detection
step and the image editing process designation in
25 said designation step to the image output apparatus;
and
a second transmission step of reading the image

data stored in the memory and transmitting the read image data to the image output apparatus.

9. A storage medium which computer-readably
5 stores a program for executing a control method of an image output apparatus capable of performing data communication with an image input apparatus, said method comprising:

an image processing step of performing an image
10 process according to image editing process designation received from the image input apparatus, to image data received from the image input apparatus, on the basis of an original direction detection result received from the image input apparatus; and
15 an output step of performing print output of the image data subjected to the image process in said image processing step.

10. An image processing system which includes a
20 first device at least having an input unit capable of inputting image data and a communication unit capable of performing data communication, and a second device at least having a communication unit capable of performing the data communication and an output unit
25 capable of outputting image data, said system comprising:

a remote output mode setting unit adapted to

set a remote output mode for performing through said communication unit the data communication of the image data input by said first device and thus causing said second device to output the communicated

5 image data;

a direction information acquirement control unit adapted to cause said first device to acquire direction information of the image data input by said first device;

10 a transmission control unit adapted to perform control to transmit the image data to be output by said second device in the remote output mode from said first device to said second device and transmit the direction information acquired by said first

15 device to said second device;

a reception control unit adapted to cause said second device to receive the image data and the direction information transmitted from said first device;

20 an image processing control unit adapted to control said second device so as to perform an image process to the image data received from said first device, according to the direction information received from said first device; and

25 a controller adapted to cause said second device to output the image data subjected to the image process by said second device.

11. An image processing system which includes a first device at least having an input unit capable of inputting image data and a communication unit capable 5 of performing data communication, and a second device at least having a communication unit capable of performing the data communication and an output unit capable of outputting image data, said system comprising:

10 a remote output mode setting unit adapted to set a remote output mode for performing through said communication unit the data communication of the image data input by said first device and thus causing said second device to output the communicated 15 image data;

a direction information acquirement control unit adapted to cause said first device to acquire direction information of the image data input by said first device; and

20 a controller adapted to cause in the remote output mode said second device to output the image data transmitted from said first device, in a manner of outputting based on the direction information acquired by said first device.

25

12. A control method for an image processing system which includes a first device at least having

an input unit capable of inputting image data and a communication unit capable of performing data communication, and a second device at least having a communication unit capable of performing the data 5 communication and an output unit capable of outputting image data, said method comprising:

a remote output mode setting step of setting a remote output mode for performing through the communication unit the data communication of the 10 image data input by the first device and thus causing the second device to output the communicated image data;

a direction information acquirement control step of causing the first device to acquire direction 15 information of the image data input by the first device; and

a control step of causing in the remote output mode the second device to output the image data transmitted from the first device, in a manner of 20 outputting based on the direction information acquired by the first device.

13. A control method according to Claim 12, wherein said control step enables to 25 in a case where a first image forming mode in which an image editing process such as an image data rotation process is necessary is set in the remote

output mode, execute a first sequence of causing the second device to output the image data transmitted from the first device, in the manner of outputting based on the direction information acquired by the
5 first device, and

in a case where a second image forming mode in which the image editing process such as the image data rotation process is unnecessary is set in the remote output mode, execute a second sequence of
10 inhibiting the first sequence and causing the second device to output the image data transmitted from the first device, in a manner of outputting not based on the direction information acquired by the first device.

15

14. A control method according to Claim 12, wherein said control step enables to

in a case where at least any one of image forming modes including a stapling mode, a page print
20 mode, a reduction layout mode and a punching mode is set in the remote output mode, execute a first sequence of causing the second device to output the image data transmitted from the first device, in the manner of outputting based on the direction
25 information acquired by the first device, and

in a case where a non-sort mode is set in the remote output mode, execute a second sequence of

inhibiting the first sequence and causing the second device to output the image data transmitted from the first device, in a manner of outputting not based on the direction information acquired by the first
5 device.

15. A control method according to Claim 12,
wherein

10 in the remote output mode, said control step
enables to output from the second device a series of
image data consisting of plural pages transmitted
from the first device in an image direction based on
the direction information acquired by the first
device, and

15 in the remote output mode, said control step
enables to selectively execute a first mode of
processing the series of image data consisting of the
plural pages based on the direction information
acquired for each page of the series of image data
20 consisting of the plural pages, and a second mode of
processing the series of image data consisting of the
plural pages based on the direction information of a
predetermined page of the series of image data
consisting of the plural pages.

25

16. A control method according to Claim 12,
wherein, in the remote output mode, said control step

enables to selectively execute a first processing mode of causing the first device to generate the processed image data obtained by performing an image process based on the direction information acquired

5 by the first device to the image data input by the first device and further causing the second device to output the processed image data, and a second processing mode of causing the second device to generate the processed image data obtained by

10 performing the image process based on the direction information acquired by the first device to the image data input by the first device and further causing the second device to output the processed image data.

15 17. A control method according to Claim 12, wherein, in the remote output mode, in a case where a series of image data consisting of plural pages transmitted from the first device is output by the second device in a manner of outputting based on the direction information acquired by the first device,

20 said control step enables to selectively execute a first transfer mode of transferring the image data in units of page from the first device to the second device, and a second transfer mode of storing all the

25 pages of the series of image data in the first device and then transferring in a lump the image data of all the pages from the first device to the second device.

18. A control method according to Claim 12,
wherein each of the first device and the second
device includes an image input unit, an original
5 direction detection unit, a storage unit capable of
storing the image data of plural pages, and a printer
unit.

19. A control method according to Claim 12,
10 wherein at least either one of the first device and
the second device is a multifunctional apparatus
which has plural functions including at least any one
of a copy function, a printer function, a facsimile
function, a box function and a network scanner
15 function.

20. A control method according to Claim 12,
wherein at least either one of the first device and
the second device is a monofunctional apparatus which
20 at least has one of a copy function, a printer
function, a facsimile function, a box function and a
network scanner function.

21. A control method for an image processing
25 system which includes a first device at least having
an input unit capable of inputting image data and a
communication unit capable of performing data

communication, and a second device at least having a communication unit capable of performing the data communication and a printer unit capable of printing the image data, said method comprising:

5 a remote print mode setting step of setting a remote print mode for performing through the communication unit the data communication of the image data input by the first device and thus causing the second device to print the communicated image
10 data;

 a page print mode setting step of setting a page print mode for causing to print page number information on a recording paper together with the input image data;

15 a page print mode detailed setting step of setting a print position on the recording paper where the page number information should be printed in the page print mode; and

20 a control step of, in a case where the remote print mode is set in said remote print mode setting step, the page print mode is set in said page print mode setting step, it is set in said page print mode detailed setting step to print the page number information at the lower right of the recording paper,
25 and the image data input by the first device and to be processed in the remote print mode is downward image data, controlling the printer unit of the

second device to print on the recording paper the processed image data obtained by rotating the downward image data upward, and also controlling the printer unit to print the page number information of 5 the processed image data at the lower right of the recording paper on which the processed image data is printed.

22. A control method for an image processing 10 system which includes a first device at least having an input unit capable of inputting image data and a communication unit capable of performing data communication, and a second device at least having a communication unit capable of performing the data 15 communication and a printer unit capable of printing the image data, said method comprising:

a remote print mode setting step of setting a remote print mode for performing through the communication unit the data communication of the 20 image data input by the first device and thus causing the second device to print the communicated image data;

a stapling mode setting step of setting a stapling mode for causing to perform a stapling 25 process to recording paper on which the input image data have been printed;

a stapling mode detailed setting step of

setting a stapling position on the recording paper in the stapling mode; and

a control step of, in a case where the remote print mode is set in said remote print mode setting 5 step, the stapling mode is set in said stapling mode setting step, it is set in said stapling mode detailed setting step to perform the stapling process at the upper left of the recording paper, and the image data input by the first device and to be 10 processed in the remote print mode is downward image data, controlling the printer unit of the second device to print on the recording paper the processed image data obtained by rotating the downward image data upward, and also controlling to perform the 15 stapling process at the upper left of the recording paper on which the processed image data have been printed.

23. An image processing system which includes a 20 first device at least having an input unit capable of inputting image data and a communication unit capable of performing data communication, and a second device at least having a communication unit capable of performing the data communication and a printer unit 25 capable of printing the image data, said system comprising:

a remote print mode setting unit adapted to set

a remote print mode for performing through said communication unit the data communication of the image data input by said first device and thus causing said second device to print the communicated
5 image data;

a page print mode setting unit adapted to set a page print mode for causing to print page number information on a recording paper together with the input image data;

10 a page print mode detailed setting unit adapted to set a print position on the recording paper where the page number information should be printed in the page print mode; and

15 a controller adapted to, in a case where the remote print mode is set by said remote print mode setting unit, the page print mode is set by said page print mode setting unit, it is set by said page print mode detailed setting unit to print the page number information at the lower right of the recording paper,
20 and the image data input by said first device and to be processed in the remote print mode is downward image data, control said printer unit of said second device to print on the recording paper the processed image data obtained by rotating the downward image
25 data upward, and also control said printer unit to print the page number information of the processed image data at the lower right of the recording paper

on which the processed image data is printed.

24. An image processing system which includes a first device at least having an input unit capable of
5 inputting image data and a communication unit capable of performing data communication, and a second device at least having a communication unit capable of performing the data communication and a printer unit capable of printing the image data, said system
10 comprising:

a remote print mode setting unit adapted to set a remote print mode for performing through said communication unit the data communication of the image data input by said first device and thus
15 causing said second device to print the communicated image data;

a stapling mode setting unit adapted to set a stapling mode for causing to perform a stapling process to recording paper on which the input image
20 data have been printed;

a stapling mode detailed setting unit adapted to set a stapling position on the recording paper in the stapling mode; and

a controller adapted to, in a case where the
25 remote print mode is set by said remote print mode setting unit, the stapling mode is set by said stapling mode setting unit, it is set by said

stapling mode detailed setting unit to perform the stapling process at the upper left of the recording paper, and the image data input by said first device and to be processed in the remote print mode is

5 downward image data, control said printer unit of said second device to print on the recording paper the processed image data obtained by rotating the downward image data upward, and also control to perform the stapling process at the upper left of the

10 recording paper on which the processed image data have been printed.

25. A program to execute a control method for an image processing system which includes a first device at least having an input unit capable of inputting image data and a communication unit capable of performing data communication, and a second device at least having a communication unit capable of performing the data communication and an output unit

15 capable of outputting image data, said method comprising:

20

a remote output mode setting step of setting a remote output mode for performing through the communication unit the data communication of the image data input by the first device and thus causing

25 the second device to output the communicated image data;

a direction information acquirement control step of causing the first device to acquire direction information of the image data input by the first device; and

5 a control step of causing in the remote output mode the second device to output the image data transmitted from the first device, in a manner of outputting based on the direction information acquired by the first device.

10

26. A program to execute a control method for an image processing system which includes a first device at least having an input unit capable of inputting image data and a communication unit capable 15 of performing data communication, and a second device at least having a communication unit capable of performing the data communication and a printer unit capable of printing the image data, said method comprising:

20 a remote print mode setting step of setting a remote print mode for performing through the communication unit the data communication of the image data input by the first device and thus causing the second device to print the communicated image 25 data;

a page print mode setting step of setting a page print mode for causing to print page number

information on a recording paper together with the input image data;

a page print mode detailed setting step of setting a print position on the recording paper where 5 the page number information should be printed in the page print mode; and

a control step of, in a case where the remote print mode is set in said remote print mode setting step, the page print mode is set in said page print 10 mode setting step, it is set in said page print mode detailed setting step to print the page number information at the lower right of the recording paper, and the image data input by the first device and to be processed in the remote print mode is downward 15 image data, controlling the printer unit of the second device to print on the recording paper the processed image data obtained by rotating the downward image data upward, and also controlling the printer unit to print the page number information of 20 the processed image data at the lower right of the recording paper on which the processed image data is printed.

27. A program to execute a control method for 25 an image processing system which includes a first device at least having an input unit capable of inputting image data and a communication unit capable

of performing data communication, and a second device at least having a communication unit capable of performing the data communication and a printer unit capable of printing the image data, said method
5 comprising:

 a remote print mode setting step of setting a remote print mode for performing through the communication unit the data communication of the image data input by the first device and thus causing
10 the second device to print the communicated image data;

 a stapling mode setting step of setting a stapling mode for causing to perform a stapling process to recording paper on which the input image
15 data have been printed;

 a stapling mode detailed setting step of setting a stapling position on the recording paper in the stapling mode; and

 a control step of, in a case where the remote
20 print mode is set in said remote print mode setting step, the stapling mode is set in said stapling mode setting step, it is set in said stapling mode detailed setting step to perform the stapling process at the upper left of the recording paper, and the
25 image data input by the first device and to be processed in the remote print mode is downward image data, controlling the printer unit of the second

device to print on the recording paper the processed image data obtained by rotating the downward image data upward, and also controlling to perform the stapling process at the upper left of the recording 5 paper on which the processed image data have been printed.